

## Specific Comments

### Volume 1 –Exhibits

**Page-Initial Statement vi**—You have missed including North Powder, OR as a community affected.

**Page-Initial Statement**—Neither BLM, USFS or other agencies are included in this section. They should be included.

**Page-Executive Summary xvii**—In your conclusion you indicate a willingness to continue development of the PME’s measures in addition to what is in this draft license. This acknowledgement to a possible commitment to work with interested agencies and parties to reach a settlement is appreciated and accepted.

**Page-A-18**—Under Federal Land you give acres of federal lands within the “project boundary”. Is this your proposed boundary or the original boundary? You have not covered yet your intention to propose a change in the boundary, nor discussed the reason or potential impact of this change. You also do not indicate that you have discussed or attempted to coordinate with those affected by this change, such as BLM, USFS or others.

**Page-B-2** –In the last bullet on this page you discuss the previous compliance of IPC with the NMFS BO for FCRPS. You state that “whenever economically equitable, the Applicant assists these efforts by scheduling the increased flow through the HCC.” However there is no indication that this commitment is present in either the proposed operations alternative or the full pool run of river alternative. Compliance with this federally mandated BO will be necessary and needs analysis in the final license application

**Page – C-2**—In the last paragraph, second sentence you have omitted the second part of the sentence leaving the though incomplete.

**Page-E.0-2**—In the first paragraph, you provide an explanation as to why you chose the two flow scenarios. The full pool run of the river was selected to, “allow the Applicant to analyze impacts with the project in place but without project operations influencing the outflow hydrograph.” 18 CFR 4.51(f)(3)(iv) requires an analysis of “any anticipated continuing impact on fish, wildlife, and botanical resources of the continued operation of the project...” Neither of the two flow scenarios that you analyzed address the continued affect of the inundation of 10,000 to 12,000 acres of lands for the next 30 years. BLM requests that this analysis be conducted prior to the filing of the final license. It should include impacts to the continued inundation of critical riparian habitat on the main stem of the Snake River as well as the tributaries, the critical big game winter range, the continued loss of habitat for ESA listed anadromous fish, lamprey and white sturgeon as well as the loss of bull trout fluvial passage.

**Page-E.0-4**—In the section describing your analytical process you state that the applicant developed the integrated approach in cooperation with the federal and state agencies. These efforts were certainly discussed but not necessarily concurred upon and certainly not approved by the federal and state agencies.

**Page-E.1.21**—In the second paragraph you refer for the first time to and “adjusted project boundary” This has not been discussed, explained or coordinated with either the BLM or the USFS. As stated earlier, this needs to be coordinated with the BLM and considered prior to just assuming that the boundary change is acceptable to all parties.

**Page-E.1-22**—In your project area description you end the study area at the mouth of the Salmon River. The BLM does not concur with this area because there are project impacts below this point at least all the way to the Captain John Creek below the mouth of the Grande Ronde River. The BLM has provided this input at workgroup meetings, Collaborative Team meetings and in writing on December 19, 1999.

**Page-E. 3-8 to E.3-10**

1. *“Since the geologic framework for the Snake River system was formed, more recent anthropogenic disturbances have affected physical processes in the study area and Hells Canyon specifically. By the 1880s, land uses varied by river reach, but overall the following activities substantially increased sediment supplies over conditions before Euro-Asian settlement (Technical Report E.1-2).*

*Trapping—As a result of widespread trapping in the 1800s, beaver populations dwindled. Failing beaver dams, which released trapped sediment, likely caused significant downstream sediment pulses.*

*Mining—By the 1860s, large dredge and hydraulic mining resulted in sedimentation rates up to 1,500 times higher than rates under natural erosion. For example, in Hells Canyon, placer mining activities were common and caused the creation of new gravel bars. During cultural surveys, archaeologists working for the Applicant noted a distinct lack of soil horizons at Salt Creek. The lack of these horizons strongly indicates that the entire area has been reworked in historical times, possibly through hydraulic mining activities.*

*Forest Management—Sediment yields in timber production areas along tributaries are estimated to have increased by an order of magnitude (increased by a factor of about 10) by the 1860s. Roads, which were built to access timber through river valleys and riparian areas, typically produce between 26 and 346 times the sediment volume that undisturbed areas produce.*

*Wildfire—Fire generally increases erosion into adjacent creeks and rivers. Prior to settlement by Euro-Asians, Native Americans supplemented wildfires by starting their own fires. Although fire was routinely prevented by the early 1990s, high-intensity fires and associated erosion in the region increased dramatically between 1970 and 1995.*

*Agricultural Development—From 1890 to 1992, Idaho’s irrigated acreage increased from 0.2 to more than 3.0 million acres. Early irrigation practices severely eroded agricultural lands within the Snake River Plain. Current sediment yields, which are improved, range from 0.67 to 51 cubic yards per acre per year.*

*Grazing—Livestock grazing during the late 1800s and early 1900s was unrestricted. This grazing also caused surface erosion and mass wasting in riparian zones throughout the watershed.*

*Urbanization—Within the last 40 years, the net change in sediment loading that has resulted from replacing agricultural land with urban land uses in the Snake River basin has not been well quantified. Current land uses that continue to affect the river are rangeland, forests, cropland and pasture, and recreational uses. Recreation uses within the canyon specifically include rafting, boating, fishing, hunting, camping, and hiking. Therefore, sediment supplies to the Hells Canyon reach of the Snake River have been substantially modified by activities upstream of and prior in time to the construction and operation of the HCC. Any accurate assignment of impact on sediment and geomorphology below the HCC must take these other factors into account.” (Page E.3-8, Paragraph 4 to Page E.3-10, Paragraph 3)*

**Response:**

The Applicant theorizes, with no credible scientific documentation, that a large “slug” of sediment was released by early European settlement activities. The “slug” was residing in the Hells Canyon Reach at the time of the HCC construction and closure. The “slug” has since moved on, and that is the reason for so many beaches and sand bars being eroded. The Applicant goes to great length to “prove” that no sediment could have been delivered to the Hells Canyon Reach from the area above Weiser, Idaho where the “slug” is supposed to have originated. Currently, the Brownlee Reservoir holds 62,000 acre feet of course and fine sediment. The Applicant’s arguments are unsubstantiated and totally inconsistent.

The Applicant argues that the Snake River in the Hells Canyon Reach is totally stable with no bed movement. At the same time the Applicant claims that 16.6 million tons of sediment is delivered to the Hells Canyon Reach each year. If the Applicant’s premise were true, it can be calculated that the bed of the Snake River would have aggraded several feet in the last 44 years. This has not happened according to the cross-section data presented by the Applicant. The Applicant cannot have a river that does not mobilize sediment while having massive delivery from its tributaries.

The Applicant’s proposition that the spawning gravels of the river are stable is without scientific foundation and is unsubstantiated. The known spawning areas of fall chinook salmon in the Hells Canyon Reach have only been documented in the last decade. There is no pre-project record of the amount of spawning gravel that may have been present. A basic principle of river functionality is that they move sediment out of a basin. When dams are constructed the finer bed material tends to be mobilized and then depleted, leaving bedrock and boulders. Furthermore, the Applicant’s freeze-core samples, collected the length of the Hells Canyon Reach, found that the spawning gravels nearest to Hells Canyon Dam have the least amount of fine particles. These data suggest that the river is moving sediment with the most erosion occurring nearest the dam. This is normal for a sediment-depleted river.

***“E.2.2.2.4.1. Below Hydroelectric Facilities In the Hells Canyon Complex***

*Total dissolved gas concentrations in the tailraces of both Brownlee and Oxbow dams generally range from 120 to 125% saturation during spill episodes. Little of the dissolved gas is dissipated downstream through Oxbow and Hells Canyon reservoirs. In the tailwater of Hells Canyon Dam, total dissolved gas peaks at about 135% saturation.”*  
(Page E.2-13, Paragraph 1)

**Response:**

The proposal to install TDG deflectors at Hells Canyon Dam when water coming from Brownlee and Oxbow dams is already exceeding state standards of 110% is inconsistent with the objective of reducing TDG. Deflectors at HCD will not reduce the level of TDG coming down the spillway.

***“E.2.2.2.2. Temperature***

*Water temperatures change longitudinally as water passes through the Hells Canyon*

**Response:**

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***“E.2.2.2.2. Temperature***

*Water temperatures change longitudinally as water passes through the Hells Canyon delayed downstream cooling.”* (Page E.2-7, Paragraph 1)

**Response:**

The Applicant’s refusal to address temperatures that are being altered by the HCC is not consistent with their program to protect fall chinook salmon. Although the Applicant supplies abundant rationale that the temperatures are not harmful to chinook, the NOAA Fisheries have documented high mortality rates for late migrant smolt that these temperatures are believed to cause.

***Exhibit D:***

***D.2.1 Fair Value***

**Response:**

Current cost of replacement based on gas-fired turbine generation at \$4.6 billion. The applicant states this amount is based on their own analysis of cost of replacement. Does the applicant have documentation which specifies how these costs were derived? If so, it would be beneficial to understand the methodology and manner for these numbers whether or not additional analysis may be necessary for determining fair value, net investment or severance damages.

Based on the estimate of \$30 a MW (short-term purchases) the purchase of 1,500 megawatts of power for a year is approximately \$370 million. If long-term purchases were to be made, what would be the estimated contracted cost? Since Idaho Power does

not provide 100 percent of their energy needs, current contracts could be extended to cover the replacement of any megawatts lost regardless of the reason for replacement.

### ***D.2.3 Severance Damages***

#### **Response:**

The applicant specifies that \$70.4 million in expenditures for preparation of the draft license application through 2005. Are any of these expenditures incorporated into the cost of doing business and subject to incorporation of the current operations of the company or corporation? If so, then they would be automatically reimbursed as part of the current revenues generation by Idaho Power or its parent Company. Could more information be provided to understand how costs are incurred for preparation of the application package in light of doing ongoing business and how these costs are separated from other ongoing application packages under current FERC Relicensing efforts?

### **D.4.4 Expenses**

#### **Response:**

The applicant states that total annual estimate of future expenses and lost generation over the 30-year license period is \$24.9 million (in 2005 dollars). Expenses estimated for PM&E are based on descriptions of proposed PM&E measures in sections E.2.4.2.1., E.3.1.3.2., E.3.2.3.2., E.3.3.3.2., E.4.2.5.1., E.4.2.5.2., E.4.2.5.3., E.5.4.4.1., E.5.4.4.2., E.5.4.4.3., E.5.4.4.4., E.5.4.4.5., and E.6.4.3. However, PM&E measures in section E.2.4.2.1 describes a number of aeration devices for incorporating dissolved oxygen into Brownlee reservoir but does not specify the one technique to be used and therefore cannot provide a reliable cost estimate. This should be acknowledged or a device should be specified to make the cost estimate.

### **E.1.8 Human Population Size and Density**

#### **Response:**

The statement is made that population change in the three states (Oregon, Idaho, and Washington) is expected to increase by about 31 percent between 2000 and 2001. This is incorrect. A growth rate of this magnitude would be so tremendous that all available resources would be exhausted within that time frame. This growth rate is estimated over a longer period of time and needs to be corrected.

Descriptions of proposed PM&E measures in sections E.2.4.2.1., E.3.1.3.2., E.3.2.3.2., E.3.3.3.2., E.4.2.5.1., E.4.2.5.2., E.4.2.5.3., E.5.4.4.1., E.5.4.4.2., E.5.4.4.3., E.5.4.4.4., E.5.4.4.5., and E.6.4.3.

Throughout the discussions of proposed PM&E measures, derived benefits are described and discussed on why these are worthwhile measures. However, there is no discussion on the value to the applicant or society in general about the worthiness of pursuing these measures. No doubt, at a minimum, the opportunity cost of lost benefits by not pursuing such measures would be a minimum starting point for those resources for which non market benefits are derived. In addition, there is the investment in maintaining marketable resources, such as fee recreation sites, that are a part of the capital inventory

of Idaho Power which would be recaptured (in-whole or in-part) should a willing buyer be found to purchase the company at some point in the future.

These benefits should be described and discussed as part of the basis for measuring the benefits in relation to the costs of PM&E measures. This will help establish which PM&E measures best fit the range of choices needed in the application package.

#### **Technical Report Appendix E.4-2**

pg- 6 - reference to earth moving is vague  
7 - add 'side' after Idaho in fourth paragraph  
9 - should be- Other vegetation in the canyon  
12 - delete 's' from Middles  
14 - include date in years for Lewis and Clark as context  
maps - an initial glance indicates that more areas should have been surveyed  
42 - we need more proof to determine Kleinschmidt Grade's eligibility  
54 - add 'a' to .. had low number of artifacts (near top of page)  
58 - change 'associate' to 'associated' in last sentence  
62 - Evaluations should be tied to the SHPOs Themes and Study Questions  
63 - add 'Not Eligible' as one of the three possible eligibility ratings  
72 - delete 'by' in the High Magnitude Impacts paragraph  
73 - Spell out 'THPO'  
80 - complete the citation for Rudolph, Teresa, Kevin Peter, Lorraine Gross. 1995.  
..Hagerman study  
maps in appendix - maps are fuzzy, color may improve them  
c-1 - change 'Thirtytwo Pant' to 'Thirty-Two Point'  
c-5 - delete 's' on fire rings  
c-26 - change 'ills' to 'hills'

#### **Technical Report Appendix E.4-3**

pg - vii - should be 36 CFR 60.4  
3-4 - maps could be colored for better legibility  
11 - should be- Caldwell and Mallory (1967)  
12 - should be - Site, artifact and faunal ...in fourth paragraph  
29 - should be The drawdown has flushed some of these deposits...  
44 - at 10-WN-328 - delete "represents"  
52- change 'ball' to 'wall' in the last paragraph  
56 - 'stand lines' should be 'strand lines'  
63 - should be (36 CFR 60.4)  
68 - IPCBD-00-64 - add 's' in 'Artifact were observed eroding from ...  
73 - change 'aor' to 'or' in the second paragraph  
75 - change 'finer-rained' to 'finer-grained'  
81 - at Gehr, change to 'Professional Analysts'  
81 - at Goetzman, change to 'Anecdotes'  
83 - at Leen, change 'canon' to 'Canyon'

- 83 - at Lenihan, capitalize national
- 84 - at Mauser, capitalize paddock in two citations

## **Volume II**

- 1- map is too small to read
- A3-A21 - maps are gray and fuzzy, color will help readability

### ***Technical Report Appendix E.4-4***

- ii - change 'Kendal's Cave' to Kelvin's Cave'
- 10 - in first sentence - change 'east to west' to 'west to east'
- 14 - AP97-201 is listed twice, but AP97-204 is not listed, one of them is probably 204
- 16 - reminder for maintenance crews about CRM laws periodically and for new employees needs to reach the field crews
  
- 23 - in first full paragraph correct 'maintenecc' to 'maintenance'
- 23 - at !0EL832, darken 'g' on 'looking'
  
- 36 - the miles to kilometers conversion is wrong: try 211miles X 1.609 kilometers/mile = 356.59 kilometers

### ***Technical Report Appendix E.4.5***

- title page - tie Project Report 97-? to a real number
- 1 - in section A 3., the Agency name was not addressed
- 6 - correct Site 10-AM1/45 to a proper Smithsonian number

### ***Technical Report Appendix E4.6***

- title page - tie Project Report 97-? to a real number
- 1 - in section A 3., the Agency name was not addressed
- 4 - in F 1., the box should be checked YES

### ***Technical Report Appendix E.4-7***

- 1 - change 'Then entire corridor...' to 'The entire corridor'
- 7 - batteau is spelled bateau in *Webster's New World Dictionary - Third College Edition*
- 8 - change '1970' to '1870'
- 15 - change 'A multiple singe stacked....' to 'A multiple single...'
- 15 - change 'forming an pen horseshoe' to 'forming an open horseshoe'
- 15 - change 'encountered were singe stacked... to 'encountered were single stacked...'

#### ***Technical Report Appendix E.4-8***

10 - additional information on Homesteads may be found in the Historical Index at BLM for mining claimant names and dates of filing

#### ***Technical Report Appendix E.4-9***

- 3 - change '904Brownlee' to '904 Brownlee'
- 5 - change '904,Weiser' to '904, Weiser'
- 5 - change 'PayetteRiver' to 'to Payette River'
- 7 - change '904Payette' to '904 Payette'
- 20 - change 'a thin ?eolian deposit' to 'a thin eolian deposit'
- 24 - change 'Site904-8/10WN132,' to 'Site 904-8/10WN132,' for both titles

#### ***Technical Report Appendix E.4-10***

- 3 - change '911,Brownlee' to '911, Brownlee'
- 3 - change 'atBrownlee' to 'at Brownlee'
- 3 - change '911,Brownlee' to '911, Brownlee'
- 22 - additional Homestead information may be obtained from BLM Historical Index files for mining claimant names and filing dates.

#### ***Technical Report Appendix E.4-11***

- 12 - add 'trapper' after fur in third line
- 40 - change 'shot-term transients' to 'short-term transients'
- 47 - the first paragraph should not be indented as it is carried over from the previous page

#### ***Technical Report Appendix E.4-12***

- 23 - change 'Boonesville' to Bonneville

#### ***Technical Report Appendix E.4-13***

##### ***Burns Paiute Repor***

- the whole report needs page numbers
- the map was fuzzy, not legible and covered too large of an area
- in Photo 9 - Did the person find the fish weight? Did they make it? Did they use it?
- in Photo 11 & 12 - A scale would have been helpful. What is its size? What is it made of?



### ***Warm Springs Report***

2 - it sounds like the report is written with only 50% of the data

3 to 6 - this information could be greatly expanded to answer questions such as:

- Who harvested the plants?
- When did they harvest?
- How did they harvest?
- Did they require special tools to harvest or process?
- What parts of the plants were harvested?
- How was the plant processed and where?
- How was the product collected?
- How was the product stored?
- What was each component of the plant used for?
- How long could each component be stored and have it remain useful?

All the above questions need to be separated into how the plants were used in "ancient times" and how the plants are still being used today.

8 - change 'through out' to 'throughout'

8 - change 'Elizabeth Rhoan' to 'Elizabeth Rhoan'

### **Umatilla Report**

1 - change 'recommenda-tions' to 'recommendations'

3 - change 'where the *Imatalamlam* and *Paluus* to 'were the....'

6 - Much of the report could be improved with more specific information. For example at Tum-ca-leaks: What does the name mean?

- In what language?
- When was the season of use?
- Where were the people immediately before going there?
- Where did the people go after this location?
- Did they require specialized gear?
- Did they make gear onsite?
- Were all the tribes there at once?
- Did they process the fish there?
- How did they process the fish?
- Who did what parts of the processing?
- Was special gear required?
- Make distinctions between "ancient ways" and modern ways.

10 - change 'Keating, OR' to 'Keating, Oregon'

10 - What was traded to obtain the obsidian?

10 - What animals did they hunt? When? How? Do they still hunt that way?

10 - What roots did they dig? When did they dig?

figure 1 - the map was fuzzy and covered too large of an area  
Treaty with Walla Walla, Cayuse and Umatilla 1855 - on the

#### ***Technical Report Appendix E.4-14***

Management Summary - change '1956 - 968' to '1956-1968'  
8 - the time frame could include 1906 to today

#### ***Technical Report Appendix E.4-15***

iv - Aquatics, Recreation and Aesthetics -Proposed PM&Es listed as "Not Yet Available"  
6 - change 'human remains taken form a cairn' to 'human remains taken from a cairn' and end it with a '.'  
12 - write out what CRWG is  
12 - Duck Valley is also for Indians in Nevada  
13 - change 'ARPA permit' to 'FLPMA permit'  
30 - give a date for Lewis an Clark for context  
31- Give a date for the Astorians  
89 - aquired lands would require inventories to determine if cultural resources are being adversely impacted  
100 - call the 'flexibility' Adaptive Management and explain it more fully  
107 - 'The Prime Mover Control' citation does not look correct.  
246 - list Dean Shaw with the Idaho BLM as a member of the CRWG

### **Volume 20 Technical Reports—**

#### **Appendix E 6.1—**

**Page 2—**The third paragraph speaks of the project boundary. Is the existing boundary or IPC's proposed new boundary? The change in this boundary has not been analyzed in the document with regard to changes in management or need for mitigation for impacts within the old boundary.

**Page 3—**In the second paragraph IPC recognizes, “Ongoing operations and maintenance of the complex also have some affect on resources below Hells Canyon Dam.” The BLM agrees with this statement and would expect recognition of impacts and subsequent mitigations for impacts from the mouth of the Salmon River to the Captain John Rapids below the mouth of the Grande Ronde River.

**Page 4—**second paragraph under 1.4 IPC's vision statement says, “ As a part of our obligation to the Public we serve, we incur a second compelling obligation to conduct our business in an environmentally conscientious manner.” BLM agrees with this statement and supports IPC in their effort to do so. The BLM comments on this draft license are an attempt to assist IPC in achieving this vision.

**Page 11—**In the second paragraph, IPC lists the special designation areas in the study or planning area. You have omitted the BLM Area of Critical Environmental Concerns

(ACEC) for the following: Sheep Mountain ACEC, Homestead ACEC and McGraw Creek ACEC.

**Page 12**—In the first paragraph you recognize the significance of the loss of the endangered species' of salmon including fall and spring. You should also include the loss of the federally ESA listed steelhead and bull trout as well.

**Page 14-19**—The BLM generally supports the goals and objectives of this document. There are some of the guidelines that are not quite consistent with BLM policies and regulations. They are discussed next.

**Page 24**—On the last paragraph and in several other places in the document guidelines you refer to a 75 foot buffer for shoreline and riparian protection. On those lands within the project boundary that are BLM withdrawn lands, we and IPC must comply with the standards identified in our INFISH policy. This requires a 300 foot buffer for all new activities on water bodies that have listed species, in this case, bull trout, present. For now that is the Hells Canyon pool and possibly the Oxbow pool. If bull trout are reintroduced to Brownlee then this would apply there as well. We realize this is not required on privately owned lands.

**Page 32**—in this first section regarding OHV use restrictions, BLM requires that these areas below the high water line be closed to OHV's for the protection of cultural resources.

**Page 36**—**section 6.3.9.18** – IPC should also work with BLM to resolve the floating covered docks issue.

**Page 46**—**Regulatory Classifications**—IPC missed the inclusion of the BLM ACEC designations for Sheep Mountain ACEC, Homestead ACEC and McGraw Creek ACEC.

**Page 47**—Under the implementation section regarding the Interdisciplinary Team, the BLM believes the best possible way to achieve the goals and objectives of this plan is to include the partner agencies for the area including representatives from BLM, USFS, ODFW, IDFG, and others on the Interdisciplinary Team. BLM participation in such a plan would require such involvement in the analysis and directing bodies involved.

**Page 55**—**Table 1** - Is this land within the existing or proposed project boundary? Or the study area? Or planning area? Once again, no discussion or proposal for the change of boundary is discussed. It would be best if acres by land ownership were available for the study area at least from rim to rim and from Weiser to Captain John Rapids. This would better demonstrate the vastness of the BLM resources involved in this project.

**Maps in the back**—These would be easier to follow if they were in color. The BLM lands should also be shown on the maps with land ownership.